INFORMATION SHEET

ORDER NO. R5-2003-XXX SIERRA PACIFIC INDUSTRIES CAMINO LUMBER MILL EL DORADO COUNTY NPDES NO. CA0078841

SCOPE OF PERMIT

This renewed Order regulates the intermittent discharge of process wastewater generated from the Sierra Pacific Industries (Discharger), Camino Lumber Mill (Facility). This Order includes effluent, water supply, sludge, and surface water limitations, monitoring and reporting requirements, additional study requirements, and reopener provisions for effluent constituents.

BACKGROUND INFORMATION

The Discharger owns and operates a lumber mill located in Camino, California. The Facility (Assessor's Parcel Number 043-180-05) is located in the southwest ¼ of Section 5 and the northwest ¼ of Section 8, T10N, R12E, MDB&M, as shown on Attachment A, a part of this Order. The facility processes approximately 115 million board feet of construction grade lumber annually. Logs are delivered by truck to the lumber mill, stacked in a 21 acre paved area (log deck) and are kept wet by a sprinkler system to prevent checking and blue staining. Bark is removed from the logs through a mechanical bark removal process. Following bark removal, the logs are rough cut, dried in a kiln, planed to final size and wrapped for shipment. Heat to the kilns is provided by a boiler.

Liquid wastestreams generated from the sawmill operations include log deck runoff, water utilized in the barking operations, filter backwash from boiler supply water treatment, boiler blowdown, condensate from the kilns, runoff from the maintenance area and stormwater. Domestic wastewater is treated in a septic system and discharged to a leach field regulated by the County.

Federal Regulations contain guidelines for sawmill operations, which prohibit the discharge of barking, sawmill, planing and finishing process wastewater into navigable waters. Other than log deck wastewater boiler blowdown and log deck runoff, all other waste streams from the sawmill operations are prohibited from being discharged to surface waters. Waste streams from the various sawmill operations have been traditionally commingled and discharged to surface waters, although land disposal was maximized. This Order implements the Federal Regulations and prohibits the discharge of the applicable sawmill operations wastestreams to surface waters.

WASTEWATER OPERATIONS

Log Deck Runoff - To maximize land disposal, the Discharger retains all log deck water onsite during the dry season, either in storage/evaporation ponds or by disposal by spray irrigation. Excess water applied to the log deck flows in open trenches to a wastewater control structure. The runoff from the log deck is recirculated back to the log decks from the water control structure. While sprinkling, the log deck is operated in a closed loop system. During precipitation periods, the log and the log yard runoff is directed to a retention pond (called the Schmidt Ditch). If the Schmidt Ditch reaches capacity, the ditch

INFORMATION SHEET
WASTE DISCHARGE REQUIREMENTS, ORDER NO. R5-2002- XXXX
SIERRA PACIFIC INDUSTRIES
CAMINO MILL
EL DORADO COUNTY

is designed to over flow and discharge to an unnamed tributary to North Canyon Creek, at a point approximately located at latitude 38° 44'43" (deg, min, sec) and longitude 120° 40'43 (Outfall A), as shown on Attachment A, a part of this Order. North Canyon Creek is a water of the United States and tributary to the South Fork of the American River.

Annually during the first significant storm event ("first flush"), the sprinklers are shut off, and all of the logdeck runoff is diverted to storage Pond P-1 via Pond P-A. This first flush stormwater/wastewater contains the concentrated pollutants that have been recirculated to the log deck during the past year. Disposal of this wastestream is by evaporation/percolation in the ponds or irrigation of the spray fields when weather permits. Tailwater from the irrigation area is returned to the ponds.

Other Sawmill Operation Wastestreams - The waste streams from other sawmill operations are commingled, stored in Pond P-1, and subsequently disposed of on the spray irrigation field as weather permits. These waste streams are not recycled for use on the log deck, or discharged to surface waters.

Discharge Location - The previous permit identified two outfalls for the facility that intermittently discharged commingled process wastewater and storm water from the site (Outfall 001 and Outfall 002). Recent modifications to the facility have eliminated the industrial discharges at Outfall 001, and Outfall 002 was determined to be an inappropriate sampling location due to commingling with runoff from offsite sources that drain onto the facility site. The new discharge point (Outfall A), which is representative of the discharges from the site, is approximately located at the point, latitude 38° 44'43" (deg, min, sec) and longitude 120° 40'43". Outfall A discharges into unnamed tributary of North Canyon Creek. The unnamed tributary to North Canyon Creek, and North Canyon Creek are waters of the United States, and tributary to the South Fork of the American River. Also located on the site is a seasonal spring on the easterly side of the site. The spring discharges to the unnamed tributary of North Canyon Creek upstream of Outfall A.

RECEIVING WATER BENEFICIAL USES

The Facility discharges into an unnamed tributary of North Canyon Creek which flows into the South Fork of the American River. The Regional Board adopted a *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition* (hereafter Basin Plan). The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve water quality objectives for all waters of the Basin.

The Basin Plan at page II-2.00 states: "Existing and potential beneficial uses which currently apply to surface waters of the basins are presented in Figure II-1 and Table II-1. The beneficial uses of any specifically identified water body generally apply to its tributary streams." Furthermore, the Regional Board generally is required to apply the beneficial uses of municipal and domestic supply to surface waters based on State Board Resolution No. 88-63, which was incorporated in the Basin Plan pursuant to Regional Board Resolution 89-056.

The Basin Plan does not specifically identify beneficial uses for the unnamed tributary to North Canyon Creek or North Canyon Creek, but does identify present and potential uses for the South Fork of the American River. The unnamed tributary to North Canyon Creek and North Canyon Creek are tributary

EL DORADO COUNTY

to the South Fork of the American River. The unnamed tributary to North Canyon Creek and North Canyon Creek are in the South Fork, Sources to Placerville Subarea (514.32) of the American River Hydrologic Unit (514.00), in the Sacramento Hydrologic Basin.

The Regional Board finds that the beneficial uses identified in the Basin Plan for the South Fork of the American River, Sources to Placerville, are applicable to the unnamed tributary to North Canyon Creek and North Canyon Creek. These beneficial uses are domestic and municipal supply, hydropower generation, water contact recreation, canoeing and rafting, other non-contact water recreation; warm freshwater habitat, cold freshwater habitat, cold freshwater spawning, and wildlife habitat. The Basin Plan on page II-1.00 states: "Protection and enhancement of existing and potential beneficial uses are primary goals of water quality planning..." and with respect to disposal of wastewaters states that "...disposal of wastewaters is [not] a prohibited use of waters of the State; it is merely a use which cannot be satisfied to the detriment of beneficial uses."

In reviewing whether the existing and/or potential uses of the South Fork of the American River apply to the unnamed tributary to North Canyon Creek and North Canyon Creek, the Regional Board has considered the following facts:

a. Municipal and Domestic Supply and Agricultural Irrigation

The Basin Plan (Table II-1) designates the beneficial uses of municipal and domestic supply to the South Fork of the American River. In addition, the SWRCB has issued water rights to existing water users along the South Fork of the American River and North Canyon Creek downstream of the discharge for domestic and irrigation uses. Since the unnamed tributary and North Canyon Creek are ephemeral streams, they also likely provide groundwater recharge during periods of low flow. The groundwater is a source of drinking water. In addition to the existing water uses, growth in the area, downstream of the discharge is expected to continue, which presents a potential for increased municipal, domestic and agricultural uses of the water in receiving stream.

b. Water Contact and Noncontact Recreation and Esthetic Enjoyment

The Regional Board finds that the discharge flows through residential areas, and there is ready public access to the unnamed tributary of North Canyon Creek, North Canyon Creek, and the South Fork of the American River. Exclusion of the public is unrealistic and contact recreational activities currently exist along the unnamed tributary of North Canyon Creek, North Canyon Creek, and the South Fork of the American River and these uses are likely to increase as the population in the area grows.

c. Preservation and Enhancement of Fish, Wildlife and Other Aquatic Resources

The California Department of Fish and Game (DFG) has verified the presence of rainbow trout, green sunfish, channel catfish, and large mouth bass in North Canyon Creek. Additionally, discussions with residents in the area confirmed the presence of trout in the tributary of North Canyon Creek. These findings are consistent with both cold- and warm-water fisheries and

indicates that there is a potential for anadromous fish migration, thus necessitating a cold-water designation. The Basin Plan (Table II-1) designates, the South Fork of the American River as being both a cold and warm freshwater habitat. Therefore, pursuant to the Basin Plan, the cold designation applies to the unnamed tributary of North Canyon Creek, North Canyon Creek, and the South Fork of the American River. The cold-water habitat designation necessitates that the in-stream dissolved oxygen concentration be maintained at, or above, 7.0 mg/L. This approach recognizes that, if the naturally occurring in-stream dissolved oxygen concentration is below 7.0 mg/L, the Discharger is not required to improve the naturally occurring level. As stated in the above Findings, currently the unnamed tributary of North Canyon Creek and North Canyon Creek are ephemeral streams.

d. Groundwater Recharge

In areas where groundwater elevations are below the stream bottom, water from the stream will percolate to groundwater. Since the unnamed tributary to North Canyon Creek, and North Canyon Creek is at times dry, it is reasonable to assume that the stream water is lost by evaporation, flow downstream and percolation to groundwater providing a source of municipal and irrigation water supply.

e. Freshwater Replenishment

When water is present in the unnamed tributary to North Canyon Creek, and North Canyon Creek, there is hydraulic continuity with the South Fork of the American River. During periods of hydraulic continuity, North Canyon Creek adds to the water quantity and may impact the quality of water flowing down stream in the South Fork of the American River.

Upon review of the flow conditions, habitat values, and beneficial uses of the South Fork of the American River, and the facts described above, the Regional Board finds that the beneficial uses identified in the Basin Plan for the South Fork of the American River are applicable to the unnamed tributary to North Canyon Creek and North Canyon Creek.

The Regional Board also finds that based on the available information and on the Discharger's application, that the unnamed tributary to North Canyon Creek, and North Canyon Creek, absent the discharge are ephemeral streams. The ephemeral nature of the waterways means that the designated beneficial uses must be protected, but that no credit for receiving water dilution is available. Although the discharge, at times, maintains the aquatic habitat, constituents may not be discharged that may cause harm to aquatic life. At other times, natural flows within the waterways help support aquatic life. Both conditions may exist within a short time span, where the waterways would be dry without the discharge and periods when sufficient background flows provide hydraulic continuity with the South Fork of the American River. Dry conditions occur primarily in the summer months, but dry conditions may also occur throughout the year, particularly in low rainfall years. The lack of dilution results in more stringent effluent limitations to protect contact recreation, drinking water, agricultural water uses, and aquatic life. Significant dilution may occur during and immediately following high rainfall events.

INFORMATION SHEET
WASTE DISCHARGE REQUIREMENTS, ORDER NO. R5-2002- XXXX
SIERRA PACIFIC INDUSTRIES
CAMINO MILL
EL DORADO COUNTY

RECEIVING WATER LIMITATIONS

Receiving Water Limitations are based upon water quality objectives contained in the Basin Plan; as such, they are a required part of this permit. The wastewater discharge from the Discharger's ponds enters an ephemeral drainage prior to entering the unnamed tributary to North Canyon Creek and North Canyon Creek. This permit requires receiving water sampling points be established, upstream and downstream from where the discharge enters North Canyon Creek to assure compliance with the Receiving Water Limitations and protection of the water quality objectives. This permit also establishes Effluent Limitations for pH, and dissolved oxygen based on the Basin Plan's water quality objectives

This permit contains Receiving Water Limitations as required to comply with the Basin Plan's water quality objectives. The limitations for temperature, turbidity and pH require that the discharge not cause the receiving water to change by specified amounts as required in the Receiving Water Limitations section of this Order. The receiving stream at the point of discharge is the headwaters for the unnamed tributary to North Canyon Creek. An upstream sampling point is not available to determine the thermal, pH shift and turbidity impacts of the discharge. The unnamed tributary to North Canyon Creek flows through open areas, prior to entering the North Canyon Creek, and the thermal, pH and turbidity impacts from any other discharges entering the drainage course could mask actual impacts of the discharge from the facility on downstream waters. In order to determine compliance for these constituents in the effluent, and receiving waters, the Monitoring and Reporting Program establishes sampling locations. These locations are: 1) Outfall A; 2) Discharge from the site (SP-4) at the property line of the facility; 3); and at points in North Canyon Creek, 4) 50-feet upstream (R-1) and 5) 100 feet downstream (R-2) from the point where the unnamed tributary enters North Canyon Creek. The Discharger shall prepare a monthly report, submitted with the Discharger Self Monitoring Report, assessing the receiving water impacts of the discharge and compliance with the Receiving Water Limitations.

Dissolved Oxygen – **Based on existing uses and** the tributary rule, North Canyon Creek has been designated as having the beneficial use of cold freshwater aquatic habitat (COLD). For water bodies designated as having COLD as a beneficial use, the Basin Plan includes a water quality objective of maintaining a minimum of 7.0 mg/*l* of dissolved oxygen. Since, by the tributary rule and an assessment of existing uses, the beneficial use of COLD does apply to North Canyon Creek, a receiving water limitation of 7.0 mg/*l* for dissolved oxygen was included in the Order.

For surface water bodies outside of the Delta, the Basin Plan includes the water quality objective that "...the monthly median of the mean daily dissolved oxygen (DO) concentration shall not fall below 85 percent of saturation in the main water mass, and the 95 percentile concentration shall not fall below 75 percent of saturation." This objective was included as a receiving water limitation in the Order.

pH - For all surface water bodies in the Sacramento River and San Joaquin River basins, the Basin Plan includes water quality objectives stating that "[t]he pH shall not be depressed below 6.5 nor raised above 8.5. Changes in normal ambient pH levels shall not exceed 0.5 in fresh waters with designated COLD or WARM beneficial uses." By the tributary rule and an assessment of existing uses, North Canyon Creek has the beneficial uses of both COLD and WARM (warm freshwater habitat); therefore, the Order includes receiving water limitations for both pH range and pH change.

INFORMATION SHEET
WASTE DISCHARGE REQUIREMENTS, ORDER NO. R5-2002- XXXX
SIERRA PACIFIC INDUSTRIES
CAMINO MILL
EL DORADO COUNTY

The Basin Plan allows an appropriate averaging period for pH change in the receiving stream. Since there is no technical information available that indicates that aquatic organisms are adversely affected by shifts in pH within the 6.5 to 8.5 range, an averaging period is considered appropriate and a monthly averaging period for determining compliance with the 0.5 receiving water pH change limitation is included in the Order

Temperature - By the tributary rule and an assessment of existing uses, North Canyon Creek has the beneficial uses of both COLD and WARM. The Basin Plan includes the objective that "[a]t no time or place shall the temperature of COLD or WARM intrastate waters be increased more than 5°F above natural receiving water temperature." The Order includes a receiving water limitation based on this objective.

Turbidity - The Basin Plan includes the following objective: "Increases in turbidity attributable to controllable water quality factors shall not exceed the following limits:

- (The 30-day average turbidity to increase) More than 1 Nephelometric Turbidity Units (NTUs) where natural turbidity is between 0 and 5 NTUs.
- Where natural turbidity is between 5 and 10 NTUs, increases shall not exceed 20 percent.
- Where natural turbidity is between 50 and 100 NTUs, increases shall not exceed 10 NTU.
- Where natural turbidity is greater than 100 NTUs, increases shall not exceed 10 percent."

The Basin Plan states: "In determining compliance with the above limits, appropriate averaging periods may be applied provided that the beneficial uses will be fully protected.". Based upon consultation with the Department of Fish and Game, a 30-day averaging period is protective of the beneficial uses for turbidity when the turbidity of the receiving water is between 0 and 5 NTUs.

Narrative Limitations—Receiving Water Limitations 2 (biostimulatory substances), 3 (color), 5 (floating material), 4 (oil and grease), 5 (radioactivity), 6 (settleable material), 7 (tastes and odors), and 8 (toxicity) are based on narrative Basin Plan objectives. The objectives are located in Chapter III: Water Quality Objectives, under the Water Quality Objectives for Inland Surface Waters heading.

EFFLUENT LIMITATIONS

Federal regulations require effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause, or contribute to an in-stream excursion above a narrative or numerical water quality standard.

The federal Clean Water Act (CWA) mandates the implementation of effluent limitations that are as stringent as necessary to meet water quality standards established pursuant to state or federal law. (33 U.S.C., § 1311(b)(1)(C); 40 C.F.R., § 122.44(d)(1)) NPDES permits must incorporate discharge limits necessary to ensure that water quality standards are met. This requirement applies to narrative criteria as well as to criteria specifying maximum amounts of particular pollutants. Pursuant to Federal Regulations, 40 C.F.R. section 122.44(d)(1)(i), NPDES permits must contain limits that control all

pollutants that "are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard, including state narrative criteria for water quality." Federal Regulations, 40 CFR, Section 122.44(d)(1)(vi), further provide that "[w]here a state has not established a water quality criterion for a specific chemical pollutant that is present in an effluent at a concentration that causes, has the reasonable potential to cause, or contributes to an excursion above a narrative criterion within an applicable State water quality standard, the permitting authority must establish effluent limits."

The Regional Board's Basin Plan, page IV-17.00, contains an implementation policy ("Policy for Application of Water Quality Objectives") that specifies that the Regional Board "will, on a case-bycase basis, adopt numerical limitations in orders which will implement the narrative objectives." This Policy complies with 40 CFR 122.44(d)(1). With respect to narrative objectives, the Regional Board must establish effluent limitations using one or more of three specified sources, including EPA's published water quality criteria, a proposed state criterion (i.e., water quality objective), or an explicit state policy interpreting its narrative water quality criteria (i.e., the Regional Board's "Policy for Application of Water Quality Objectives")(40 C.F.R. 122.44(d)(1) (vi) (A), (B) or (C)). The Basin Plan contains a narrative objective requiring that: "All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life". The Basin Plan requires the application of the most stringent objective necessary to ensure that surface water and groundwater do not contain chemical constituents, toxic substances, radionuclides, or taste and odor producing substances that adversely affect beneficial uses. The beneficial uses include municipal and domestic supply, agricultural irrigation supply, water contact and non-contact recreation and aquatic habitat and migration. The Basin Plan states that material and relevant information, including numeric criteria, and recommendations from other agencies and scientific literature will be utilized in evaluating compliance with the narrative toxicity objective. The Basin Plan also limits chemical constituents in concentrations that adversely affect surface water beneficial uses. For waters designated as municipal, the Basin Plan specifies that, at a minimum, waters shall not contain concentrations of constituents that exceed Maximum Contaminant Levels (MCL) of CCR Title 22. The Basin Plan further states that; to protect all beneficial uses the Regional Board may apply limits more stringent than MCLs. When a reasonable potential exists for exceeding a narrative objective, Federal Regulations mandate numerical effluent limitations and the Basin Plan narrative criteria clearly establish a procedure for translating the narrative objectives into numerical effluent limitations.

Timber Processing Operations - Wastewater generated from timber processing operations is regulated under the Code of Federal Regulations (CFR), Title 40, Part 429. The point source category guidelines apply (§ 429.10, Applicability) to "any timber products processing operation, and any plant producing insulation board with wood as the major raw material, which discharges or may discharge process wastewater pollutants to waters of the United States, or which introduces or may introduce wastewater pollutants into a publicly owned treatment works". Effluent limitations for the following subcategories for timber product processing operations are applicable to this facility.

a. Subpart A – Barking Subcategory, § 429.21(a): The following limitations apply to all mechanical barking installations: There shall be no discharge of process wastewater pollutants into navigable waters.

- b. Subpart I Wet Storage Subcategory, § 429.101: Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent reduction attainable by the application of the best practicable control technology currently available (BPT): There shall be no debris discharged and the pH shall be within the range of 6.0 to 9.0. Part § 429.11(i) defines debris as woody material such as bark, twigs, branches, heartwood or sapwood that will not pass through a one-inch diameter round opening and is present in the discharge from a wet storage facility.
- c. Subpart K Sawmill and Planning Subcategory, § 429.121: Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent reduction attainable by the application of the best practicable control technology currently available (BPT): There shall be no discharge of process wastewater pollutants into navigable waters.
- d. Subpart L Finishing Subcategory, § 429.131: Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent reduction attainable by the application of the best practicable control technology currently available (BPT): There shall be no discharge of process wastewater pollutants into navigable waters.

Review of the onsite wastewater collection system shows that the process wastewater from the sawmill operation, boiler blowdown, and the equipment maintenance area runoff, and other associated waste streams are commingled, stored in ponds, and disposed of via spray irrigation land disposal.

Timber processing operations at the facility for which effluent limits apply include: mechanical bark removal (40 CFR § 429.21(a)), wet storage, saw milling, planning and finishing. 40 CFR § 429.100 contains effluent guidelines for wet log storage based on "best practicable control technology currently available." For the log deck runoff the Federal Regulations state that there shall be no debris discharged and the pH shall be within the range of 6.0 to 9.0. The Effluent Limitation for pH, in this Order are based on the Basin Plan's Water Quality Objective for pH that requires the pH remain greater than 6.5 and less than 8.5. Federal Regulations, 40 CFR § 429.11(i), define debris as woody material such as bark, twigs, branches, heartwood or sapwood that will not pass through a one inch diameter round opening.

The water utilized on the site for log deck sprinkling, and dust suppression is a wastewater and if discharged to surface waters, is required to meet the discharge criteria as described in Finding No. 18 of the permit.

Tannins and Lignins - Tannins and lignins are generated from wood products and could cause discoloration or a pH shift of the effluent or receiving water, presenting a reasonable potential for causing exceedance of the Basin Plan water quality standards for discoloration and pH. An Effluent Limitation for tannins and lignins of 30 mg/l (daily maximum) is included in this Order based on best professional judgment.

EL DORADO COUNTY

Oil and Grease – Oil and Grease could be present from equipment maintenance and operations, thereby creating a reasonable potential for causing exceedance of Basin Plan water quality standards for floating material and possibly toxicity. Effluent Limitation for oil and grease of 15 mg/l (daily maximum) and 10 mg/l (monthly average) is included in this Order based on best professional judgment.

Total Suspended Solids - A total suspended solids (TSS) limitation of 30 mg/l (monthly avg.) and 60 mg/l (daily max.) is included in the existing Order and is necessary to assure compliance with the Basin Plan water quality objectives for suspended material and turbidity. Reissuance of the permit with a less stringent limitation would violate the anti-backsliding provisions of the Federal Regulations, 40 CFR 122.44. This Order contains Effluent Limitations for TSS based on protection of the Basin Plan water quality objectives for suspended material and turbidity.

Total Dissolved Solids (TDS) - A TDS limitation of 300 mg/l (monthly avg.) and 500 mg/l (daily max.) is included in the existing Order and is necessary to assure compliance with the Basin Plan water quality objectives. Reissuance of the permit with a less stringent limitation would violate the anti-backsliding provisions of the Federal Regulations, 40 CFR 122.44, therefore the existing effluent limitations for TDS are maintained in this Order.

Chemical Oxygen Demand - A chemical oxygen demand (COD) limitation of 30 mg/l (monthly avg.) and 60 mg/l (daily max.) substances are included in the existing Order. Chemicals uses, and present in boiler blowdown, and tannic acid from the wood processing, can cause high levels of COD in the effluent. The COD will utilize oxygen in the receiving stream. This Order contains a Receiving Water Limitation for dissolved oxygen of 7.0 mg/l based on protection of the cold-water aquatic life designation. Data provided by the Discharger indicates COD values as high as 37 mg/l, which indicates reasonable potential for the COD substances in the effluent. Reissuancee of the permit with a less stringent limitation would violate the anti-backsliding provisions of the Federal Regulations, 40 CFR 122.44, therefore the existing effluent limitations for COD are maintained in this Order.

Aluminum - Based on samples collected by Regional Board staff during inspections, the discharge contained concentrations of aluminum as high as 2600 μ g/l. U.S. EPA established Ambient Water Quality criteria for the protection of freshwater aquatic life of 87 μ g/l (four-day average) and 750 μ g/l (one-hour average). Using the methodology in the U.S. EPA's Technical Support Document (TSD) for Water Quality-Based Toxics Control, conversion of the limitation from an 1-hour average to a daily maximum, and 4-day average to a monthly average was done to allow effluent limitations to be consistent sampling frequencies defined by the monitoring and reporting program. This conversion resulted in a daily maximum effluent limit of 749 μ g/l, and a monthly average limit of 87 μ g/l for aluminum. The analytical data shows that the discharge has a reasonable potential to cause an exceedance of the Basin Plan narrative toxicity objective. This Order includes concentration-based Effluent Limitations for aluminum based on the Basin Plan narrative toxicity objective utilizing the EPA's recommended Ambient Criteria.

Color - Order No. 97-114 includes effluent limits for color (monthly average =50 Pt-Co, Daily Max.=100 Pt.-Co.). With the requirement for receiving water limitations of turbidity, monitoring for color is redundant. There is no indication in the record or findings of the previous Order to indicate why an effluent limit for color was included, and with the turbidity limitation preexisting, this change is

-10-

consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Resources Control Board Resolution 68-16. Any impact on existing water quality will be insignificant.

Toxicity—The Basin Plan states that "[a]ll waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life. This objective applies regardless of whether the toxicity is caused by a single substance or the interactive effect of multiple substances." The Basin Plan requires that "[a]s a minimum, compliance with this objective...shall be evaluated with a 96-hour bioassay." Order No. R5-2002-____ requires both acute and chronic toxicity monitoring to evaluate compliance with this water quality objective.

The low-flow nature of North Canyon Creek means that the designated beneficial uses must be protected, but that no credit for receiving water dilution is available. The use of a dilution series to evaluate compliance with the narrative toxicity objective contained in the Basin Plan is, therefore, inappropriate.

The Basin Plan further states that "...effluent limits based upon acute biotoxicity tests of effluents will be prescribed...". Effluent limitations for acute toxicity have been included in the permit.

GROUNDWATER LIMITATIONS

The beneficial uses of the underlying ground water are municipal and domestic, industrial service, industrial process and agricultural supplies.

The permit contains a Groundwater Limitation that requires the discharge not degrade groundwater quality when compared with background water quality, therefore the permitted discharge is consistent with the antidegradation provisions of 40 CFR 131.12 and SWRCB Resolution 68-16. Compliance with these requirements will result in the use of best practicable treatment or control of the discharge. The impact on existing water quality will be insignificant.

GENERAL EFFLUENT LIMITATION INFORMATION

Selected 40 CFR §122.2 definitions:

'Average monthly discharge limitation means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.

Average weekly discharge limitation means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week.

Continuous discharge means a "discharge" which occurs without interruption, except for infrequent shutdowns for maintenance, process changes, or other similar activities.

-11-

Daily discharge means the "discharge of a pollutant" measured during a calendar day or any 24-hour period that reasonably represents a calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

Daily maximum discharge limitation means the highest allowable "daily discharge".'